



# newsletter

The management  
Newsletter for all  
industries involved  
with bar-code  
scanning and  
related  
technologies.

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INCLUDING THE INTERNATIONAL EDITION



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This issue of our newsletter....

....will be mailed in time to reach our subscribers before the two major automatic identification expositions of the year: SCAN-TECH/US and SCAN-TECH/Europe. It will also be distributed at both shows to all attendees and exhibitors.

We have subscribers in over 20 countries. They are both sellers and users of all types of bar code scanning equipment and services. Our objective is to provide our readers with the background and information that will help them with the important decisions they face regarding automatic identification. It is important to know about the companies, products, and industry activities that are news -- but we realize that much of that can be obtained from other publications and journals (some of them free!). We see our role as getting behind the events and providing an insight and flavor that may not be apparent to the casual observer. Even those SCAN-TECH attendees who may be reading SCAN Newsletter for the first time will find that their understanding of the exhibits and presentations will be enhanced.

During the last week of November and the first week of December our editors will be attending SCAN-TECH/Europe in Holland and SCAN-TECH/US in Baltimore. There will be a great deal of news and we want to cover it all for you in our own special way. Therefore our next edition will be a double issue for December/January and we expect it to be in the mail by mid-December.

For those who attend the shows, we will try to bring some things into focus. For those who could not make it, we will provide you with highlights of the latest developments in bar code scanning. Everyone can benefit from our unique perspective. Look for this special edition.

There is a great deal....

....of attention and activity being directed toward the quality of printed bar codes. Possibly the most important is the new project launched by the American National Standards Institute (ANSI) under the title Guideline for Bar Code Print Quality.

This has evolved as a joint undertaking by two ANSI committees: the OCR group (X3A1.3); and the MH10.8 committee, which developed and published Bar Code



Symbols on Unit Loads and Transport Packages two years ago. The joint venture was in the nature of a compromise, since each committee felt that print standards should fall under its purview. Under the stewardship of Chuck Biss from the OCR committee, and Allan Gilligan from the bar code group, the new committee has met a few times and a working draft is now being circulated.

It is a good document that includes new definitions and approaches as to how a bar code should be evaluated. It revises the way in which print contrast is measured, addresses specific procedures for how symbols are to be scanned when measurements are taken and, if adopted, will undoubtedly affect the published standards of many industries. In particular, it is a significant departure from the accepted criteria established for UPC and LOGMARS -- the two most widely used bar codes.

The ANSI project is coming none too soon what with the many fragmented efforts currently underway: ● Responding to a request by the government's LOGMARS Coordinating Group, AIM has drafted a symbol acceptability standard. ● In June 1985, RJS went strongly on record complaining that a bid by the Army for 2,000 printers did not include adequate provision for bar code quality control and verification. ● There is a grass roots movement in Europe to establish better standards for checking EAN symbols. ● There are literally dozens of companies developing, adapting and bringing to market a wide variety of "print engines," some of which produce results that at best may look okay to the naked eye.

The latest issue of SCANJOURNAL (Third Quarter 1985) has two articles that illustrate the point. In the one on verification, the editor invited the three manufacturers of verification equipment to submit separate articles on the subject. In order not to reflect any bias, the editor then reconciled the varying viewpoints on symbol verification, and combined them into an amalgum that would not offend anyone. The real problem was that none of them had an acceptable benchmark to work from. In the other article, on printing bar codes using conventional printing methods, the author danced around the lack of any true standard for printing UPC symbols, and attempted to set objectives based on non-specific empirical criteria.

If you are a user or vendor, and agree that a standard on bar code printing is important, then get involved in this ANSI effort. The committee will accept any responsible input, and invites participation either as a committee member or even as one who wants to monitor progress from the sidelines. The next meeting is tentatively scheduled in Baltimore immediately following SCAN-TECH/85.

Contact: Chuck Biss, Photographic Sciences Corp., PO Box 338, Webster, New York 14580-0338; 716/265-1600. Or Allan Gilligan, AT&T Bell Laboratories, Crawford's Corner Road, Holmdel, New Jersey 07733; 201/870-7923.

#### We reported on....

....the recent difficulties experienced by Metrologic and how the company was forced into Chapter 11 bankruptcy. (SCAN Sep 85). We would like to update that report.

In the exact words of Harry Knowles, President of the company: "We are in good financial shape with a strong balance sheet. Since re-opening, we have been quite profitable, our cash flow has been good-to-excellent, our production is current, our entire product line has been retained. I know of no customer defections." Metrologic's bank is providing full support, including favorable



interest rates and extended terms. Unsecured creditors, of course, are still standing in line waiting for the final reorganization plan, but Knowles expects full cooperation.

The company has new marketing plans, has additional regional sales managers, and expects to introduce new products with a fresh image to be shown at Scan Tech 85.

In its latest....

....financial report, for the second quarter of fiscal 1986, Telxon shows a healthy 35% increase in sales and 45% increase in income compared to last year. The corresponding 6 month increases were 32% and 43%:

<u>TELXON</u>	<u>3 Months Ended 9/30</u>		<u>6 Months Ended 9/30</u>	
	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>
Revenues (\$000)	\$19,519	\$14,461	\$37,277	\$27,425
Net Income (\$000)	1,606	1,106	2,810	1,951
Net Income/Share	.20	.15	.35	.26

There is other significant news from the company:

- Telxon equipment is being integrated into systems offered by a group of "value added resellers" (VARs), including AT&T and PAR Technology. AT&T orders amounted to over 15% of Telxon's business during the first 6 months of this fiscal year; PAR is handling the installation of Telxon equipment destined for every McDonald's fast food outlet.
- A new subsidiary has been formed in France replacing distributors. The company plans to pursue the international market more aggressively.
- Telxon has been sued by MSI Data for patent infringement. MSI specifically cited the new Telxon Model 701 as violating its 1974 patent on conserving battery power when engaged in bar code scanning. Telxon's reply is that "the suit is without merit." (Earlier this year, Telxon had sued MSI in a dispute about alleged conflict of interest involving a European consultant hired by both companies. That suit is pending. The companies don't seem to be behaving like friendly competitors.)

Telxon President Ray Meyo sees continued strong demand for Portable Tele-transaction computers (PTC's) in the company's traditional markets, and through expanded distribution via the more than 50 VARs now signed up who are addressing individual niche markets. Although the company has not issued sales and earnings forecasts for the year, financial analysts who follow the company are predicting FY 1986 sales in the mid-\$80's. It should be noted that almost two-thirds of the PTC's shipped by Telxon are adapted for bar code scanning.

The other shoe....

....was dropped by Intermec when it released its fiscal 1986 second quarter results. In August, the company stated that earnings would be affected by 2 factors: the settlement of a suit brought by ex-distributor Comspec; and difficulties with a key distributor in southern California (See SCAN Sep 85).



The second quarter figures show an 8% drop in sales and a net loss of 6 cents per share. Obviously the shareholders were not too happy -- the stock dropped for awhile to about \$11, although it has since recovered to about \$13-14. It had been as high as \$22 this past year.

<u>INTERMEC</u>	<u>3 Months Ended 9/30</u>		<u>6 Months Ended 9/30</u>	
	<u>1985</u>	<u>1984</u>	<u>1985</u>	<u>1984</u>
Revenues (\$000)	\$ 9,427	\$10,245	\$20,337	\$18,290
Net Income (Loss)(\$000)	(320)	941	183	1,506
Net Income (Loss)/Share	(.06)	.20	.03	.32

Intermec has a lot of ground to make up in the earnings column for the balance of this year. President David Allais answers with the optimistic statement "Intermec can meet its aggressive goals for the second half and believe we may earn nearly as much in the next six months as we earned in all of fiscal 1985."

#### With the adoption....

.... of the Provider Applications Standard in September (SCAN May 85, Aug 85), the health industry has now set the specifications for bar coding all products used in hospitals and other health care facilities: the Provider Standard covers bar codes generated within a facility for items such as patient wristbands and care records, specimen containers, blood, dietary items and documentation; the Supplier Labeling Standard (which was called the HIBC Standard up to now) addresses those products supplied to the hospitals and health care facilities.

The Health Industry Bar Code Council (HIBCC) has announced three regional conferences and exhibitions to educate the health care industry and to promote the benefits of automatic identification. Each conference will include a 2 1/2 day program of seminars. There will be exhibits by vendors of equipment, supplies and services. The events are scheduled in 1986: March 3-5 in Dallas; April 14-16 in Chicago; June 2-4 in Baltimore. For information on registration or exhibiting: HIBCC, 111 East Wacker Drive, Chicago, Illinois 60601; 312/644-6610.

A new advisory panel has been formed to provide input to the HIBCC Board of Governors. It is headed by Eric Brodheim, VP/Systems Planning and Operations of the New York Blood Center. Brodheim is not new to bar code scanning. He has been directly involved since the early planning stages for the installation of scanning systems in blood banking in the early 1970's (SCAN May 1984). His advisory panel will have representative working professionals from the patient care community including pharmacists, radiologists, nurses and blood transfusionists. He sees his group as providing the interface between the HIBCC and the patient care constituency. He invites interested vendors to participate.

#### Is the right way to develop....

....industry standards to go for a blockbuster epic production or a mini-series? The US Health Industry Bar Code Council (HIBCC), and its newly adopted Provider Applications Standard (SCAN May 85, Aug 85 and above), can be classed among the epics.



In the UK a series of mostly uncoordinated developments is taking place which may have as big an impact. There is certainly no grand scheme; certainly no equivalent of the HIBCC.

- Boots The Chemist, the retail chain with over 1,000 stores, has asked suppliers to EAN source marked products by June, 1986 in advance of a wide installation of EPoS scanning planned for 1987. Boots is the largest UK chain of pharmacists dealing with doctors' prescriptions for National Health Service patients.
- The Association of British Pharmaceutical Industries (ABPI), representing major drug manufacturers, recommended that its members register with the Article Numbering Association and allocate EAN article numbers to their entire product range.
- A separate, but related, ABPI development is the plan to introduce original pack dispensing (also called patient pack dispensing). A pre-pack would be prescribed by the medical practitioner and dispensed by the pharmacist instead of the current UK practice of counting pills and tablets and bottling them in the dispensary. If all goes well, these packs should be the norm within three years and make it sensible to extend EAN source marking to all dispensed products.
- UK citizens pay only a standard charge for prescription drugs or even get free medication. The Natural Health Service (NHS) is responsible for refunds of the remaining value of prescription drugs to individual pharmacists. At present this is all handled manually. One suggestion associated with the ABPI's drive for patient pack dispensing is that each pack should have a self-adhesive detachable label carrying the EAN bar code. As the ethical drug is dispensed, the label would be removed from the pack and affixed to the prescription form for the NHS to process automatically.
- Most recently, some Regional Health Authorities (RHA) have undertaken trials using EAN bar code labels on health care products in hospitals. The trials proved successful and have encouraged plans for a wider scale use. End products which are produced or repackaged solely within the hospital service would carry EAN bar codes.

The common theme for all these developments is the use of EAN numbering and bar coding on all health care products. Without any visible coordination, the retailers, health providers and government agencies all gravitated toward the use of the well-established, proven EAN system, with its installed administrative support, standards and industry acceptance. Keep tuned for the next episode.

Last month we reported....

....that "We stumbled across a situation in the UK which understates the use of scanning at retail....Deliberately excluded are installations using hand-held laser scanners and wands." We have rightly been taken to task by Andrew Osborne, Secretary General of the UK Article Numbering Association (ANA) who points out the definition used in its glossary for scanning: "Reading a code by machine. Originally used to mean laser scanning but now more generally used to mean any machine reading of codes including wandng."



RMDP, however, have been using the narrower definition. Since they publish UK scanning store information more frequently than the ANA, there has been some cause for confusion. From now on, however, RMDP will not only list all scanning stores but categorize them as well. The ANA, we are told, is about to publish their own full list of scanning stores in the UK.

#### It seems as if....

....the EAN and UPC systems are attracting more than their fair share of legal activity recently (SCAN Sep 85). The latest case involves Centrale fur Coorganisation (CCG) the German EAN affiliate, as plaintiff in a case against Deutsche Gesellschaft fur Warekennzeichnung (DGWK) for illicit use of the EAN system. The fact that the International Article Numbering Association EAN joined the CCG as co-plaintiff suggests that this was considered more than a minor national skirmish.

The German lawsuit is concerned with the overlapping of numbering systems and use of symbology. Towards the end of last year DGWK published a handbook describing the Firmenadress-und Artikel-Nummerierungssystem (FAN). It was developed for the German electrical industry whose products include domestic electrical appliances. Among the companies involved are Bosch & Siemens. The FAN consists of an 18 digit numbering system which can be used for company locations or products. It uses the EAN check digit algorithm, can be compressed to 13-digit or 8-digit formats, and the symbology proposed is EAN-13 and EAN-8 for product codes. Add the "coincidence" that the German FAN numbers begin 42, which is one of the EAN prefixes assigned to CCG, and the picture becomes clear.

In its strong opposition to the FAN system the International EAN Association emphasized the lack of a valid reason for a new article numbering system, plagiarism and ambiguity. Legal proceedings were started in the German courts this summer after the failure of previous friendlier approaches from Albert Heijn, President of EAN. On September 10, a Berlin court forbade the DGWK from using prefix 42 (and thus seizing part of the EAN article numbering capacity). In turn, any numbers already allocated by DGWK may not be used in a 13-digit format or be represented in EAN symbology without contravening the law. The message: Don't attempt to undermine the structure of the worldwide UPC/EAN systems.

#### An upsurge has been reported....

....in the number of scanning stores in the EAN community in the last nine months. The latest figures, from the International EAN Association, list 8,113 stores scanning at the end of July 1985, an increase of 3,340 (70%) over the October 1984 international total. In the nine month period prior to October 1984, 1,262 stores came on stream, indicating an almost threefold increase in the current rate of new installations. The greatest number occurred in Japan, up by 2,006 stores to 5,206, and now comprising almost two thirds of all EAN installations. Australia shows an increase from 115 to 170 stores.

We analyzed the vendor data supplied by the International EAN Association, and noted the widely divergent choices of scanning equipment in the various countries. (Japan does not supply vendor listings.) To make our point, we concentrated on the 6 major European EAN participants, each with over 100 scanning stores.



All six Countries			France	Germany	UK	Sweden	N'lands	Belgium
Total Number Of Stores	2311		793	550	312	299	189	168
<u>Vendors</u>	<u>#</u>	<u>%</u>						
Hugin-Sweda	509	22%	34%	3%	9%	48%	5%	21%
IBM	432	19%	16%	36%	23%	5%	10%	1%
D/checker-DTS	386	17%	3%	5%	50%	5%	36%	56%
NCR	356	15%	26%	10%	7%	6%	23%	7%
Nixdorf	222	10%	1%	35%	-	-	11%	1%
TEC	126	6%	10%	1%	2%	-	12%	9%
ADS-Anker	124	5%	3%	7%	2%	15%	2%	1%
Others (16 Vendors)	156	7%	7%	3%	7%	21%	1%	4%

The figures show that Hugin-Sweda can justify its recent claim of being in the top league of EPOS equipment vendors in Europe, but still has ground to make up in its headquarters country: the United Kingdom. In contrast, Nixdorf is strongest in its domestic market, with 35% of the German market. The American owned vendors, IBM, Datachecker/DTS and NCR, each show unusual patterns of strengths and weaknesses. At one extreme, DTS has 50% of the UK market, while IBM has only a 1% foothold in Belgium. A further factor to make the future more fascinating to follow: there has been a 70% growth in the allocation of manufacturer numbers in the last 9 months!

We draw no conclusions from these numbers, but they do emphasize the complexity and competitiveness of the market.

#### In some quarters....

....there is a strong feeling that one of the major potential areas for automatic identification is in document tracking: purchase orders, invoices, shipping documents, receiving reports. These are the day-to-day pieces of paper used to record transactions -- those mountains of paper that refuse to disappear in spite of all the predictions of the coming computerized, paperless society.

One new company that is concentrating its effort in this area is Infocel. The company has introduced PaperFlo, a microcomputer-based system that incorporates bar code technology to track and manage documents as they move through an office. According to the company, the new system allows the purchasing, personnel and finance departments, medical facilities, government agencies and other organizations responsible for high volume paper processing to dramatically improve productivity and efficiency without adjustments to their existing office procedures.

PaperFlo is designed so that users can locate any document instantly, record its movements, check its schedule, and route it automatically, from either a distributed work station or from the PaperFlo base station computer. The system uses code 39 and operates from an NEC work station lap computer with attached scanning wand; or with a portable wand with 2 KB memory which downloads into the AT&T 3B2 super microcomputer-based station.



Infocel (short for information cell -- the smallest information unit) was launched in 1983 with over \$3 million in venture capital. The first PaperFlo installation came in September 1984 in New York's Bellevue Hospital. Additional systems have been sold to the Federal Government. Infocel sees its potential customers as any company or organization with certain operations governed by large "paper bureaucracies." A typical system costs approximately \$75,000.

Infocel, 3204 Monroe Street, Rockville, MD 20852; 301/984-6363.

#### At the upcoming meeting....

....of FACT (Federation of Automated Coding Technologies), scheduled for early 1986, this new organization (SCAN May 85, July 85) will elect its officers and get moving on its program. The nominated officers are Ed Coe (Deloitte Haskins Sells), Chairman; Hal Juckett (Uniform Code Council), Vice Chairman; Conrad Kotlowski (LOGMARS Coordinating Group/Tobyhanna), Treasurer. The charter member organizations are Aluminum Association, AIM/US, Automotive Industry Action Group, Distribution Codes Institute, Health Industry Bar Code Council, LOGMARS Coordinating Group, National Association of Service Merchandising, National Council for Prescription Drug Programs, National Electrical Manufacturers Association, Uniform Code Council. DuPont has joined as a private corporation with associate charter sponsor status.

One of the major goals of this "super organization of organizations" is to create a single set of national standards for all industries to follow. The actual goals and programs will be established by the new officers and put into motion after the organization meets and sets its agenda. Administrative support is being provided by AIM/US, 1326 Freeport Road, Pittsburgh, PA 15238; 412/963-8588.

#### Ben Nelson of Markem....

....has never been one to let any grass grow under his feet. Following up on his tour of the Michigan State University School of Packaging, in conjunction with the International Conference of Packaging (SCAN Oct 85), Nelson wrote to Dr. Mackson, the Director of the school, suggesting an educational program on bar code scanning.

The proposal was enthusiastically received and Nelson immediately organized a half-day seminar. It was held on October 31 under the general auspices of the AIM education program. He was joined by Bert Willoughby of AccuSort and they addressed all of the graduate students and some of the faculty. They covered the basics of the bar code scanning technology, and applications in warehousing.

We think this is a great project which should be pursued aggressively by AIM at other colleges and universities. Special credit to Ben Nelson, whose concentrated efforts on behalf of the bar code scanning industry have always been well received. He has done so well for the Scanmark Division of Markem, by the way, that his job has been expanded to handle Industrial Marketing Relations for the entire company.